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November 17, 1987

Secretary
Office of the Federal
Communications Commission
Washington, D.C.
20554

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Dear Sirs:

RE: Response by Rogers Cablesystems of America, Inc. (RCA) to the FCC's Notice of Inquiry
MM Docket No. 87-268

Attached, please find enclosed the response by Rogers Cablesystems of America, Inc. (RCA) to the FCC's Notice of Inquiry MM Docket No. 87-268. Correspondence pursuant to this response should be addressed to:

N.F. Hamilton-Piercy, P. Eng.
Vice President, Engineering and Technical Services
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Respectfully submitted on behalf of Rogers Cablesystems of America, Inc.

N.F. Hamilton-Piercy, P.Eng.
Vice President
Engineering & Technical Services

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Encl.

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November 17, 1987

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	
Advanced Television Systems and their Impact on the Existing Television Broadcast Service	
Review of Technical and Operational Requirements: Part 73-E, Television Broadcast Stations	MM Docket No. 87-268
Reevaluation of the UHF Television Channel and Distance Separation Requirements of Part 73 of the Commission's Rules	

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COMMENTS OF ROGERS CABLESYSTEMS OF AMERICA, INC. (RCA)

Rogers Cablesystems of America (RCA) operates a number of cable television systems in the United States serving approximately 500,000 subscribers. In addition to its U.S. cable television subsidiary RCA, Rogers Cablesystems Inc. operates a number of cable television systems in Canada serving roughly 1,500,000 subscribers. Rogers Communications Inc., the parent company of Rogers Cablesystems Inc., is involved in broadcasting in Canada through Rogers Broadcasting Limited, and in telecommunications through Cantel Inc., Canada's only national cellular telephone company.

Rogers, through its various holdings having interests in broadcasting, cable television, and in cellular telephone services, is vitally interested in the effect Advanced Television Systems may have on the competitive positions of these businesses. Introduction of ATV into competing media such as video cassette recorders, satellite direct broadcasting systems,

and Multiple Multipoint Distribution Systems could seriously disadvantage the broadcast and cable television businesses, while spectrum reassignment between non-broadcast and broadcast uses could also alter the growth potential of cellular telephone service.

Rogers believes that Advanced Television (ATV) is advantageous and inevitable, but adds qualification that the level of technical quality and the incremental price that the consumer may pay to receive the enhanced service would dictate the timing and rate of consumer acceptance. Rogers also believes strongly in smooth transitions to new technologies and greatly favours ATV schemes which minimize the cost of retaining compatibility with as much of the existing production, transmission and consumer electronic equipment chain as possible.

The millions of viewers watching broadcasts on NTSC television receivers should not be adversely affected by the evolution to ATV. The programs that will be available in the new ATV format should also be viewable with currently achievable NTSC quality on existing NTSC receivers.

Consumers may be expected to purchase a new, large screen ATV receiver for their primary viewing set, but they will likely want to watch the same program available in NTSC format on other less expensive TV sets in the bedroom or recreation room, etc. This duality of reception can be anticipated both during the transition period for sets displaced from the primary viewing area and later on for new sets which must remain inexpensive for these secondary viewing locations. Any ATV system considered should therefore have as a basic element an NTSC compatible component which contains the essence of the program being aired. An example of an ATV system that does not satisfy this goal is the Japanese MUSE system.

At the same time, the NTSC compatible component of the new ATV system should not suffer degradation relative to current practice. It seems possible to actually improve on typical NTSC with new processing techniques at the studio and/or transmitter, and these should be encouraged as part of the evolution to ATV as well as adopted in its eventual embodiment.

Several of the two-channel ATV proposals appear to satisfy the goals outlined above. The main channel is an improved NTSC format signal which is compatible with conventional NTSC receivers. The second, augmentation channel conveys the additional information required to produce an ATV picture when received by a new ATV receiver. Two-channel ATV systems support the additional feature of continued quality advancement. Since the augmentation channel is not chained to existing hardware, it may have a format which allows for a hierarchy of quality improvements. Hence, as signal processing advancements continue or perhaps as augmentation channel bandwidth is allowed to increase, better quality ATV pictures and/or sound are possible. This is an important consideration for future evolution of any ATV system.

A consideration of particular interest to premium program suppliers and distributors is scrambling of the signal to protect unauthorized viewing. It is desirable that any ATV system adopted be amenable to scrambling or encryption such that a minimal amount of extraneous processing hardware is required at the receiver to descramble. A transmission component for remotely authorizing and deauthorizing receivers for particular programs is also desired. Perhaps a subset of the digital data signal used to convey high fidelity stereo audio could be

allocated for descrambling control. It seems desirable to be able, from an economic and consumer convenience perspective, to use the same signal format and therefore the same receiving hardware, for both public broadcast and premium service television signals.

Rogers believes that participation in ATV developments consistent with the philosophies described above, is a company responsibility. The Company views proactive measures in co-operation with the ATSC and its charter member, the NCTA, and other international standards committees are the best means of fulfilling this responsibility.

Rogers supports the position of the ATSC that certain issues raised in the Commission's inquiry should await the availability of additional data. Rogers believes that both consumer market data addressing technical performance/cost tradeoffs, and industry data addressing the economics of varying degrees of compatibility, should be obtained. In addition, Rogers believes that the Commission should act as a catalyst to fulfill these factfinding objectives, prior to addressing the specific standards issues.

Rogers also underscores the importance of full industry representation by all interested business players. The FCC is charged with the responsibility of spectrum management, and while the Broadcast Industry may be imminently affected by spectrum reassignment, there is a more fundamental issue governing potential spectrum reallocation. As a particular example, non-broadcast use of a portion of the UHF spectrum for mobile radio/telephone would presumably take precedence over this same spectrum for ATV transmission, given equal consumer market priority for the two services, because there will be a feasible closed circuit alternative for ATV transmission which will reach a projected 70% of the U.S. population via cable television at

the expected time of introduction of an ATV service, and to a lesser extent VCR, laser disc or DBS technology for the remaining sector. A similar alternative does not exist for mobile radio/telephone. Different spectrum bands can be traded but spectrum cannot be eliminated for mobile services.

It is apparent that broadcasters, cognizant of spectrum conservation issues, are generally supporting ATV proponents which best address both the technical performance/cost tradeoffs and the compatibility issues. Their motivation is to remain competitive in the future. Whether this is globally best achieved by technological development enabling high quality ATV with the current or a revised broadcast spectrum, or by business allegiances with cable companies is indeed a difficult question to answer.

Rogers believes that these issues will be answered over the course of the next several years through the combined effort of industries and the standards associations for which they represent, and cautions that premature adoption of standards in a developing technology is as undesirable as is lack of standards in a mature technology.

Respectfully Submitted,

Rogers Cablesystems of America